

REMARKS

The title has been changed to be more clearly indicative of the invention to which the claims are directed. Specifically, mention of concurrent use of multiple operating systems has been removed since concurrent use of multiple operating system only applies to a specific embodiment.

I. OBJECTIONS TO THE DISCLOSURE

The Office has objected to the disclosure stating:

i) All the known prior art contents from the "DETAILED DESCRIPTION OF THE INVENTION" section needs to be moved into the "Description of Related Art" sub-section of the "BACKGROUND OF THE INVENTION" section.

In response, the headers on page 1 have been amended to more closely match the headers suggested in 37 CFR 1.77(b), thereby creating a section labeled "Description of Related Art".

The Office has further objected to the disclosure stating

ii) The sub-section "Description of Related Art" of the "BACKGROUND OF THE INVENTION" section must contain all known prior arts. This sub-section lacks known prior art information, which is used in the dependent claims, like, the details of functionality of the appliance operating systems.

This objection by the Office is traversed, in that the recited subject matter of the claims is believed novel and is properly disclosed in the Detailed Description section of the application. To the extent the Office is asserting any type of Official Notice with respect to any items, such Official Notice is hereby traversed, and references in support of the Office's position are requested pursuant to MPEP 2144.03.

Withdrawal of the rejections in section 2 of the Office Action is requested based on the amendments and arguments herein.

II. INFORMATION DISCLOSURE STATEMENT

The Office has requested the submission of additional information under 37 CFR § 1.105 to properly examine or treat the matter of the present application. The Office states that based on the Field of the Invention "the invention is not the creation of the operating systems (both, appliance and general operating system) from scratch, hence applicant must submit the know [sic] prior arts for the appliance and general operating systems".

It appears, since general operating systems are described in the Background section, that the Office is trying to determine what appliance operating systems exist. The assertion that the Field of the Invention Statement implies that appliance operating systems are known or in the prior art is hereby traversed.

It is unclear as to the basis for the Office's presumption that appliance operating system are known. Just because a Field of the Invention statement recites an apparatus having "two modes of operation" does not preclude one, or both, of the modes of operation from providing novelty. As described in the specification, an appliance operating system loads only those components needed to control an appliance independent of a general operating system on a single information handling device. Depending upon the embodiment, an appliance operating system can control a plurality of related appliances, or an appliance operating system can be provided for each appliance of the single information handling device. Except to the extent provided herein, the information requested by the Office in section 3 of the Office Action is either unknown or not readily available to the Applicant.

The Office is requested to notify the Applicant in a timely manner if for any reason this is not considered a complete reply under 37 CFR § 1.105.

III. REJECTION UNDER 35 U.S.C. § 103

The Office Action rejects Claims 1, 2, 4, 5, 7, 8-10, 13, 14, 18, 22, and 26 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,041,396, hereinafter Lee, in view of Applicant's admitted prior art (AAPA). The Office Action rejects Claims 1-4, 6, 7, 11, 12, and 16-26 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,615,303, hereinafter Endo, in view of Applicant's admitted prior art (AAPA). The Office Action rejects Claims 1, 2, 4, 7, 18 22 and 26 over U.S. Patent No. 6,269,409, hereinafter Solomon, in view of Applicant's admitted prior art (AAPA). The rejections are hereby traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q. 2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make

the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP § 2142.

The Office asserts in its rejection of independent claims 1, 7, 18, and 26 based on the Lee/AAPA combination that the AAPA discloses an appliance operating system to control an appliance based on material Applicant described in the Description of the Related Art portion of the application. This assertion is respectfully traversed.

The Description of the Related Art portion of the application discloses that prior art systems use general operating systems to implement a wide variety of tasks including such things as home finance, web browsing, television tuning, compact disc playing and digital video disk playing. Nowhere in the background is an appliance operating system described.

The Office states that Lee discloses an appliance operating system to control the information handling device to operate an appliance at col. 1, lines 39-45 of Lee. Applicant respectfully disagrees.

Lee discloses only two operating systems -- a disk operating system (DOS) and Windows operating system. Neither of these operating systems are appliance operating systems, but are instead general operating systems of the type described in the Background section of the Applications. The various functions described by Lee are performed by either a DOS operating system or a Windows type operating system since these are the only identified operating systems in Lee. There is no disclosure or suggestion in Lee that the functions listed at lines 39-45 use an appliance operating system. More specifically, the only disclosed operating systems of Lee are the general operating systems of DOS and Windows.

Neither Lee nor the AAPA disclose or suggest, alone or in combination, an appliance operating system as recited in claims 1, 7, 18, and 26. Therefore claims 1, 7, 18, and 26 are necessarily non-obvious over the recited combination.

The Office asserts in its rejection of claims 1, 7, 18, and 26 based on the Endo/AAPA combination that the AAPA discloses an appliance operating system to control an appliance in the Description of the Related Art portion of the application. This assertion is respectfully traversed.

As discussed above, nowhere in the AAPA is an appliance operating system described.

The Office states that Endo discloses an "appliance operating system to control the information handling device to operate an appliance at col. 2, lines 11-22. Applicant respectfully disagrees.

Endo discloses two operating systems one referred to as a general purpose operating system, the other referred to as a real-time operating system. Neither of the two operating systems disclosed by Endo is an appliance operating system. A real time operating system, though optimized for assuring fast response time, is a general operating system in that it suffers from limitations identified in the Background section with regards to loading speed and size, and reliability. Endo is directed to the different problem of sharing IO resources between concurrently running operating systems. The concurrently running operating systems of Endo do not address the problems identified in the background of the application, which include slow operating system load times and reliability issues. Thus, Endo is directed to a different problem than the presently claimed invention.

Neither Endo nor the AAPA disclose or suggest, alone or in combination, an appliance operating system as recited in claims 1, 7, 18, and 26. Therefore claims 1, 7, 18, and 26 are necessarily non-obvious over the recited combination.

The Office asserts in its rejection of claims 1, 7, 18, and 26 based on the Solomon/AAPA combination that the AAPA discloses an appliance operating system to control an appliance in the Description of the Related Art portion of the application. This assertion is respectfully traversed.

As discussed above, nowhere in the AAPA is an appliance operating system described.

The Office states that Solomon discloses an "appliance operating system to control the information handling device to operate an appliance," in the abstract. Applicant respectfully disagrees.

Solomon discloses operating multiple operating systems through an abstraction layer. However, none of the disclosed operating systems of Solomon are appliance operating systems,

but are instead the general operating systems, UNIX and NT. Furthermore Solomon discloses that a general purpose operating system, UNIX, must be operating. This is inconsistent with the present application in that requiring a general operating system to operate concurrently with an appliance operating system, though possible, would not resolve the stated problems addressed by the present invention, such as loading time and instability.

Neither Solomon nor the AAPA disclose or suggest, alone or in combination, an appliance operating system as recited in claims 1, 7, 18, and 26. Therefore claims 1, 7, 18, and 26 are necessarily non-obvious over the recited combination.


For these reasons, the Office Action fails to establish a *prima facie* case of obviousness against independent Claims 1, 7, 18, and 26. Accordingly, the Applicant respectfully requests withdrawal of the § 103(a) rejections of independent Claims 1, 7, 18, and 26. Likewise, since each of the independent claims is allowable, each of the dependent claims is also allowable. In addition, the dependent claims provide additional non-obvious subject matter.

Claims 28 through 40 have been added.

Applicant(s) respectfully submit that the present application is now in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims.

Respectfully submitted,

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